# Magnetic anisotropy in Fe-NiO systems

Marco Finazzi
Politecnico di Milano

Fe-NiO systems belong to the class of heterogeneous systems in which a ferromagnetic (FM) material interacts with an antiferromagnetic (AFM) partner. They are characterised by peculiar magnetic properties, such as uniaxial or unidirectional anisotropy induced in the FM by the adjacent AFM, or perpendicular coupling between two FM layers separated by an AFM spacer. These phenomena have been and still are the subjects of extensive theoretical and experimental investigations, also motivated by their potential applications in reading head and sensor, electronic devices, and magnetic storage media.

The magnetic structure of Fe/NiO bilayers and of Fe/NiO/Fe trilayers has been extensively studied with several experimental techniques: spin polarised inverse photoemission, x-ray magnetic dichroism, spin-polarised low energy electron microscopy, and magneto-optic Kerr effect. A survey of the experimental results will be discussed and compared with the predictions of numerical simulations.